

1. A method of optimizing human growth hormone (hGH) replacement therapy in a patient comprising
  - providing patient data to a specially programmed computer having communication with a specialist in hGH replacement therapy located remote from
  - 5 said patient,
  - receiving information from said specialist regarding an individualized dose of hGH,
  - administering the individualized dose of hGH to said patient.
2. The method of claim 1 wherein said patient data includes data selected from the group consisting of an insulin like growth factor 1 (IGF-1) level, a testosterone level, a thyroid hormone level, and combinations thereof.
3. The method of claim 1 wherein said dose of hGH is provided in a container having dose information contained in a computer readable code, and said code is scanned into said programmed computer.

4. A method of determining whether a patient is a candidate for anti-aging therapy with human growth hormone (hGH) comprising

providing patient data selected from the group consisting of age, gender, hematology profile results, chemistry profile results, insulin like growth factor-1 (IGF-1) level, testosterone level, a thyroid hormone level, and combinations thereof to a specialist in hGH replacement therapy using a specially programmed computer,

thereafter following a directive by said specialist for treating said patient with hGH if said IGF-1 level is lower than a normal IGF-1 level or said testosterone level is lower than a normal testosterone level.

5. The method of claim 4 further comprising

providing said level of IGF-1 from a monitoring site where the patient is located to a specialist site where a hGH specialist is located,

determining said dose of hGH at said specialist site,

communicating said dose from the specialist site to the monitoring site, and

administering said determined dose at said monitoring site.

6. The method of claim 4 wherein said specialist monitors said patient administered with said hGH dose.

7. The method of claim 6 wherein said administered hGH dose is an initial dose.

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| 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30  | 31  | 32  | 33  | 34  | 35  | 36  | 37  | 38  | 39  | 40  | 41  | 42  | 43  | 44  | 45  | 46  | 47  | 48  | 49  | 50  | 51  | 52  | 53  | 54  | 55  | 56  | 57  | 58  | 59  | 60  | 61  | 62  | 63  | 64  | 65  | 66  | 67  | 68  | 69  | 70  | 71  | 72  | 73  | 74  | 75  | 76  | 77  | 78  | 79  | 80  | 81  | 82  | 83  | 84  | 85  | 86  | 87  | 88  | 89  | 90  | 91  | 92  | 93  | 94  | 95  | 96  | 97  | 98  | 99  | 100 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 |

9. A method for monitoring a patient receiving human growth hormone (hGH) as an anti-aging therapy by a specialist in said therapy at a location remote from said patient comprising

evaluating patient medical data entered into a specially programmed  
5 computer communicating between said specialist and an on-site health professional to verify that said patient is a candidate for hGH therapy,  
directing a dose of hGH to be administered to said patient and  
monitoring said patient for responsiveness to said administered hGH dose.

10. The method of claim 9 further comprising a health professional at a location on-site of said patient entering said medical data.

11. The method of claim 9 further comprising a health professional at a location on-site of said patient administering said dose of hGH.

12. The method of claim 9 further comprising a health professional at a location on-site of said patient querying said specialist regarding said patient.

13. A system for monitoring a patient receiving human growth hormone (hGH) as an anti-aging therapy comprising
- a specialist system accessible to a specialist monitoring said patient in communication with a non-specialist system accessible to a non-specialist administering said hGH,
- a memory for storing data, and
- a plurality of systems programs stored in said memory and selected from the group consisting of a screening program, a monitoring program, a dose calculation program, a calculated dose verification program, an administered dose verification program, a patient data program, an accessory function program, and combinations thereof.
14. The system of claim 13 wherein said monitoring program monitors the concentration of an analyte selected from the group consisting of insulin-like growth factor 1, testosterone, a thyroid hormone, and combinations thereof.
15. The system of claim 14 wherein the accessory function program is selected from the group consisting of posing and responding to queries, alerting the specialist or non-specialist, prompting for additional information, and combinations thereof.

16. A computer program product comprising

a computer usable medium having computer readable code embodied therein for determining an individualized dosing regimen of hGH to be administered to a patient for anti-aging hGH replacement, the computer usable medium comprising

means for screening a patient to determine candidacy for hGH replacement, means for calculating an initial dose of hGH for administering hGH to said patient, means for verifying said initial dose of hGH before administering hGH to said patient, means for verifying said initial dose of hGH after administering hGH to said patient, means for monitoring said patient, means for evaluating data for said patient, means for providing an accessory function, and combinations thereof.

17. The program of claim 16 wherein said means for screening a patient to determine candidacy for hGH replacement comprises determining said patient's concentration of insulin growth factor-1 (IGF-1) and testosterone, and accepting said patient for hGH replacement if said concentration of IGF-1 is at least 5% below a normal IGF-1 concentration or if said concentration of testosterone is at least 10% below a normal testosterone concentration.

18. The program of claim 16 wherein said means for calculating an initial dose of hGH for administering to said patient comprises evaluating parameters selected from the group consisting of age, gender, insulin growth factor 1 level (IFG-1), testosterone level, hematology profile results, chemistry profile results, and combinations thereof.

19. The program of claim 18 wherein said means for calculating said initial dose of hGH uses an input parameter of age  $\geq 40$  years, IGF-1 level  $> 5\%$  below normal, a testosterone level  $\geq 10\%$  below normal for males and  $\geq 30\%$  below normal for females, a hematology panel substantially within normal limits, and a chemistry panel substantially within normal limits.

20. The program of claim 16 wherein said means for verifying said initial dose of hGH before administering hGH to said patient comprises entering and transmitting said calculated dose to a specialist in hGH replacement therapy and receiving confirmation of said dose by said specialist before administering said dose to said patient.

21. The program of claim 16 wherein said means for verifying said initial dose of hGH after administering hGH to said patient comprises entering and transmitting said administered dose by a non-specialist in hGH replacement therapy to a specialist in hGH replacement therapy.

22. The program of claim 16 wherein said entering said administered dose comprises scanning an encoded dose contained on a vial containing hGH using a scanning apparatus to enter said encoded dose into said program.

23. The program of claim 16 wherein said means for monitoring said patient comprises monitoring said concentration of IGF-1 in said patient throughout said hGH dosing regimen.

24. The program of claim 23 wherein said monitoring comprises monitoring a parameter selected from the group consisting of IGF-1, IGF-1 binding protein, and testosterone in a graphical form.

25. The program of claim 16 wherein said monitoring further comprises incorporating an alert feature in said program for a pre-determined IGF-1 concentration.

26. The program of claim 16 wherein said means for evaluating data for said patient comprises evaluating objective and subjective criteria for said patient throughout and upon completion of said hGH dosing regimen.



27. A computer program product for use with a computer system, the computer program product comprising a computer usable medium having program code embodied in the medium for causing the computer system to establish an individualized dosing regimen of hGH replacement therapy comprising at least a  
5 screening program to determine candidacy of a patient for said therapy and a dose calculation program to determine an hGH dose for said patient.

28. The program of claim 27 further comprising a program selected from the group consisting of a dose verification program, a patient data program, a monitoring program, an accessory function program, and combinations thereof.